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Reversed Shear Alfvén Eigenmode Stabilization by Localized Electron Cyclotron Heating,* M.A. Van Zeeland, J. Lohr, *GA,* W.W. Heidbrink, *UCI*, R. Nazikian, W.M. Solomon, N.N. Gorelenkov, G.J. Kramer, *PPPL*, M.E. Austin, *U. Texas*, T.L. Rhodes, *UCLA*, C. Holcomb, M.A. Makowski, *LLNL*, G.R. McKee, *U. Wisc.*, S.E. Sharapov, *UKAEA* – Reversed shear Alfvén eigenmode (RSAE) activity in DIII-D is observed to be stabilized by electron cyclotron heating (ECH) near the minimum of the safety factor (q_{min}) in neutral beam heated discharges with reversed magnetic shear. The degree of RSAE stabilization and the volume averaged neutron production (S_n) are highly dependent on ECH deposition location relative to q_{min}. Ideal MHD simulations predict RSAE existence during ECH, indicating that the mode disappearance is due to kinetic effects not taken into account by the ideal MHD model. While discharges with ECH stabilization of RSAEs have higher S_n than discharges with significant RSAE activity, neutron production remains strongly reduced (up to 60%), indicating the bulk of the deficit is not due to RSAEs alone.

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